CLAIMS

1. A system for authenticating one or more acquired signals. The system further comprising:

one or more acquisition devices for creating a representation of one or more input signals, a signal output connected to one or more application devices; and

a responder receiving the signal representations from the acquisition devices, in response to challenges received from one or more challenge generator devices, and the responder sending responses that are a function of the signals and the challenges, the signal representations capable of being verified by comparing the responses to the function of the signals and the challenges.

2. A system as in claim 1, where the signal representation is digital.

3. A system as in claim 2, where the responder is a computer system having one or more central processing units and one or more memories.

4. A system, as in claim 1, where the signal is one or more of the following: a biometric signal, a fingerprint image, a face image, an iris image, an audio signal, and a speech signal.

5. A system, as in claim 1, where the acquisition device is one or more of the following: a camera, a biometrics sensor, a semiconductor-based fingerprint sensor, a micro-mechanical sensor, and a microphone.

6. A system, as in claim 1, where the responder has two or more selectable functions, the functions being selected by one or more configuration inputs.

7. A system, as in claim 6, where the configuration inputs are connected to an external source that selects the function.

8. A system, as in claim 7, where the external source includes one or more of the following: a set of switches, a jumper block, a clock, a global positioning system signal, an external computer, and a pseudo-random number generator.

9. A system, as in claim 1, where the responder function includes one or more of the following: a check sum, a pseudo-random sample, a block of contiguous samples, and a function of selected samples of the signal.

10. A system, as in claim 1, where the acquisition device and the responder are both located on a single semiconductor chip.

11. A system, as in claim 1, where the signal representation is transmitted to the application device over a network.

12. A system, as in claim 1, where the challenge is received over a network and the response is transmitted over the network.

13. A system, as in claim 1, where the application device is one or more of the following: a computer, a transaction processor, a web server, and a database system.

14. A system for authenticating one or more acquired signals, comprising:

means for creating a representation of one or more input signals;

means for creating challenges;

means for creating responses that are a function of the input signals and the challenges; and

means for verifying the responses by comparing them to the function of the input signals and the challenges.

15. A method for authenticating one or more acquired signals, comprising the following steps:

creating a representation of one or more input signals;

creating challenges;

creating responses that are a function of the input signals and the challenges; and

verifying the responses by comparing them to the function of the input signals and the challenges.

16. A computer product for authenticating one or more acquired signals that performs the following steps:

creating a representation of one or more input signals;

creating challenges;

creating responses that are a function of the input signals and the challenges; and

verifying the responses by comparing them to the function of the input signals and the challenges.